SANTA CRUZ BIOTECHNOLOGY, INC.

GSKIP siRNA (h): sc-92269

BACKGROUND

GSKIP (GSK3-β interaction protein), also known as C14orf129 or HSPC210, is a 139 amino acid protein belonging to the UPF0279 family. Localizing to the cytoplasm, GSKIP is expressed in heart, brain, placenta, liver, skeletal muscle, kidney, testis, lung and pancreas. GSKIP interacts directly with GSK-3B, a protein that plays an important role in various physiological functions and regulates axons and dendrites, resulting in GSK-3B inhibition. The gene encoding GSKIP maps to human chromosome 14q32.2, which contains approximately 700 genes and 106 million base pairs, and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The genetic disorder α1-antitrypsin deficiency is also associated with chromosome 14.

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CHROMOSOMAL LOCATION

Genetic locus: GSKIP (human) mapping to 14q32.2.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

GSKIP siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GSKIP shRNA Plasmid (h): sc-92269-SH and GSKIP shRNA (h) Lentiviral Particles: sc-92269-V as alternate gene silencing products.

For independent verification of GSKIP (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-92269A, sc-92269B and sc-92269C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

GSKIP siRNA (h) is recommended for the inhibition of GSKIP expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor GSKIP gene expression knockdown using RT-PCR Primer: GSKIP (h)-PR: sc-92269-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.